

*Valley Go
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*CAL*Green

2010 Update



Introduction

California Building Standards Commission

Michael Nearman

Deputy Executive Director

(916) 263-0916

michael.nearman@dgs.ca.gov



Today's Objectives

■ Review

- ❑ CALGreen Code Development
- ❑ Code Cycles

■ Overview of Mandatory Nonresidential Code Provisions

- ❑ 2010 CALGreen Supplements

California Green Building Standards Code

■ Why CALGreen?

□ Code Development

- Administration Directive
- Conserve Resources
- Reduce impact buildings have on the environment

California Green Building Standards Code

■ CALGreen

- ❑ Initial Voluntary Standards
 - Effective August 1, 2009
- ❑ City and County Adoption
- ❑ 2010 Mandatory Standards (triennial publication)
 - Part 11, Title 24
 - Effective January 1, 2011

2010 California Building Standards Code – Title 24

(effective January 1, 2011)

- ❑ Part 1 - California Administrative Code
- ❑ Part 2 - California Building Code
- ❑ Part 2.5 California Residential Code
- ❑ Part 3 - California Electrical Code
- ❑ Part 4 - California Mechanical Code
- ❑ Part 5 - California Plumbing Code
- ❑ Part 6 - California Energy Code
- ❑ *Part 7 - Vacant*
- ❑ Part 8 - California Historical Building Code
- ❑ Part 9 - California Fire Code
- ❑ Part 10 - California Existing Building Code
- ❑ **Part 11 - California Green Building Standards Code**
- ❑ Part 12 - California Referenced Standards Code



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California Green Building Standards Code

Code Cycles

■ 2010 Supplement

- New mandatory nonresidential provisions include alterations and additions
- Effective July 1, 2012

■ Current Code Adoption Cycle (2012)

- 2013 triennial code effective January 1, 2014

California Green Building Standards Code

■ Chapter 1 Administration

- ❑ Purpose (101.2)
 - Environmental impact
- ❑ Scope (101.3)
 - New construction and some additions & alterations on July 1, 2012
 - Not intended to be identified as meeting the requirements of a point rated system
- ❑ Local amendments based on findings (101.7)
 - Climate
 - Topography
 - Geology
- ❑ Alternate Materials and Methods (101.8)
- ❑ Construction Documents (102)
- ❑ Application and State Agency Authorities (103 - 106)
- ❑ Effective Use of the Code (101.11)

California Green Building Standards Code

■ Matrix Adoption Tables

■ Chapter 2 Definitions

- ❑ If used in more than one location in the code a defined term will be located in Chapter 2
- ❑ If only used in one chapter the defined term will be located in the definition section at the beginning of that chapter
- ❑ Matrix adoption tables tell which agency adopts

California Green Building Standards Code

■ Chapter 3 Green Building

- Scope
- Mixed Occupancy Buildings
 - Shall comply with appropriate requirements for each separate occupancy type
- Phased Projects
- Voluntary Tiers
 - *CALGreen* Tier 1 and Tier 2

California Green Building Standards Code

- Chapter 4 Residential Mandatory Measures
- Chapter 5 Nonresidential Mandatory Measures
- Chapter 6 Reference Organizations and Standards
- Chapter 7 Installer and Special Inspector Qualifications
- Chapter 8 Compliance Forms and Worksheets

California Green Building Standards Code

■ Chapter A4

- Residential Electives and Tiers
- Residential Checklist

■ Chapter A5

- Nonresidential Electives and Tiers
- Nonresidential Checklists
 - BSC, DSA-SS, OSHPD effective January 1, 2011
 - BSC, OSHPD effective July 1, 2012

California Green Building Standards Code

■ Chapter 5 Nonresidential Mandatory Measures

- ❑ Planning and Design – Division 5.1
- ❑ Energy Efficiency – Division 5.2
- ❑ Water Efficiency and Conservation – Division 5.3
- ❑ Material Conservation and Resource Efficiency – Division 5.4
- ❑ Environmental Quality – Division 5.5
- ❑ Additions and Alterations – Division 5.7
 - New- Effective July 1, 2012

PLANNING AND DESIGN – Chapter 5-Division 5.1

Site Development

January 1, 2011

- Stormwater soil loss prevention plan
- Bicycle parking
- Designated parking

July 1, 2012

- Stormwater pollution prevention BMP *
- Delete UC reference *
- Clarify stall marking *

* Also applies to additions and alterations

PLANNING AND DESIGN – Chapter 5- Division 5.1

Site Development

January 1, 2011

- Light pollution reduction
 - Voluntary on April 20, 2011
- Grading and paving

July 1, 2012

- IESNA 2011 BUG Ratings mandatory as of July 1, 2012
- Coordinate BMP with HCD *

* Also applies to additions and alterations

ENERGY EFFICIENCY - Chapter 5- Division 5.2

Mandatory Measures are Regulated by the California Energy Commission

- Mandatory provisions are found in Part 6 of Title 24

WATER EFFICIENCY AND CONSERVATION Chapter 5-

Division 5.3

Indoor Water Use

January 1, 2011

- Separate water submeters for high water use
- 20% reduction in indoor water use
 - Prescriptive and performance standards

July 1, 2012

- Separate water submeters for subsystems *
- Clarify prescriptive and performance methods, showerheads and tables *

* Also applies to additions and alterations

WATER EFFICIENCY AND CONSERVATION Chapter 5-

Division 5.3

Outdoor Water Use



January 1, 2011

- Water budget
- Separate submeter for outdoor potable water use
- Weather or soil moisture-based irrigation controllers

July 1, 2012

- No change *
- Minor clarifications *
- Minor clarifications *

* Also applies to additions and alterations

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MATERIAL CONSERVATION and RESOURCE EFFICIENCY - Chapter 5- Division 5.4

Water Resistance & Moisture Management

January 1, 2011

- Exterior weather protection by Title 24 or local ordinance
- Design for moisture control
 - Sprinklers
 - Entries and openings

July 1, 2012

- No change *
- No change *

* Also applies to additions and alterations

MATERIAL CONSERVATION AND RESOURCE EFFICIENCY - Chapter 5- Division 5.4

Construction Waste Reduction, Disposal & Recycling

January 1, 2011

- Construction waste reduction of 50%
- Waste management plan required, or meet local ordinance

July 1, 2012

- No change *
- Same; add options for *
 - Waste management company
 - Waste stream reduction

*** Also applies to additions and alterations**

MATERIAL CONSERVATION AND RESOURCE EFFICIENCY - Chapter 5- Division 5.4

Construction Waste Reduction, Disposal & Recycling

January 1, 2011

- Exception for isolated jobsites
- Recycle or reuse 100% of land clearing debris

July 1, 2012

- No change *
- Same; add exception for contaminated debris *

* Also applies to additions and alterations

MATERIAL CONSERVATION AND RESOURCE EFFICIENCY - Chapter 5- Division 5.4

Building Maintenance and Operation

January 1, 2011

- Recycling by occupants



- Building commissioning for new buildings 10,000 s.f. and over

July 1, 2012

- No change *

* Also applies to additions and alterations

- Minor clarifications; add exceptions for
 - Dry warehouses
 - Some tenant improvements

MATERIAL CONSERVATION AND RESOURCE

EFFICIENCY - Chapter 5- Division 5.4

Building Maintenance and Operation

January 1, 2011

- Testing and adjusting for buildings less than 10,000 s.f.
 - HVAC balancing

July 1, 2012

- Same with minor clarifications *

* Also applies to additions and alterations

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ENVIRONMENTAL QUALITY –

Chapter 5- Division 5.5

Pollutant Control

January 1, 2011

- Fireplaces
- Voluntary
- Covering of duct openings and protection of equipment during construction

July 1, 2012

- No change *
- If HVAC is used for temporary ventilation *
- Minor clarifications *

* Also applies to additions and alterations

ENVIRONMENTAL QUALITY –

Chapter 5- Division 5.5

Pollutant Control

January 1, 2011

- Indoor air quality
 - Finish materials
 - Filters
- Environmental tobacco smoke

July 1, 2012

- Minor clarifications *
 - Referenced standards
 - Exception for small, ductless units
 - Clarification of authority to regulate

* Also applies to additions and alterations

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ENVIRONMENTAL QUALITY –

Chapter 5- Division 5.5

January 1, 2011

- **Indoor moisture control** (other codes)
- **Indoor air quality** (Energy Code)
 - Ventilation
 - CO₂ monitoring

July 1, 2012

- No change *
- Editorial changes *

* Also applies to additions and alterations

ENVIRONMENTAL QUALITY –

Chapter 5- Division 5.5

January 1, 2011

■ Environmental Comfort

- Exterior noise transmission
- Interior sound

■ Outdoor air quality

- Ozone depleting chemicals

July 1, 2012

■ Significant changes *

- Align with HCD in CBC and general plans; add performance alternative
- No change

■ No change *

* Also applies to additions and alterations

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2010 California Green Building Standards Code

NONRESIDENTIAL VOLUNTARY MEASURES

■ Appendix A5

- The measures contained in the appendix are not mandatory unless adopted by a city, county, or city and county. Appendix provisions may also be used voluntarily by designers, builders, and property owners.
- *CALGreen* Tier 1 and Tier 2 are intended for adoption by cities, counties, and cities and counties to help California meet its goals for greenhouse gas emission reduction.

NONRESIDENTIAL VOLUNTARY MEASURES

To achieve CALGreen Tier 1 or Tier 2, one must comply with the following:

- Meet all mandatory requirements;
- Exceed 2010 California Energy Code by 15% or 30%;
- Employ additional voluntary measures in all the following areas:
 - ❑ Parking for clean air vehicles
 - ❑ Cool roofs
 - ❑ Reduction of indoor and outdoor water use
 - ❑ Construction waste diversion of 65% for Tier 1 and 80% for Tier 2
 - ❑ Use of materials with recycled content
 - ❑ Installation of low-emitting resilient flooring and thermal insulation; and

NONRESIDENTIAL VOLUNTARY MEASURES

To achieve CALGreen Tier 1 or Tier 2, one must comply with the following:

- **Comply with additional elective measures as follows:**
 - ❑ 5 electives for Tier 1
 - ❑ 15 electives for Tier 2
- **Application Checklist**
 - ❑ Mandatory provisions
 - ❑ Provisions required for compliance with tiers

Category	Environmental Performance Goal	Tier 1	Tier 2
All	Minimum Mandatory	Meet all of the provisions of Chapter 5	Meet all of the provisions of Chapter 5
Planning and Design	Designated Parking for Fuel Efficient Vehicles	10 percent of total spaces	12 percent of total spaces
	Cool Roof to Reduce Heat Island Effect	Roof Slope < 2:12 SRI 64 Roof Slope > 2:12: < 5 lb/s.f. SRI 16 ≥ 5 lb/s.f. SRI 10	Roof Slope < 2:12 SRI 78 Roof Slope > 2:12: < 5 lb/s.f. SRI 23 ≥ 5 lb/s.f. SRI 30
		1 additional Elective from Division A5.1	3 additional Electives from Division A5.1
Energy Efficiency	Energy Performance	Exceed 2010 CA Energy Code by 15 percent	Exceed 2010 CA Energy Code by 30 percent
Water Efficiency and Conservation	Indoor Water Use	30 percent Savings	35 percent Savings
	Outdoor Water Use	Not exceed 60 percent of ETo times the landscape area	Not exceed 55 percent of ETo times the landscape area
		1 additional Elective from Division A5.3	3 additional Electives from Division A5.3
Material Conservation and Resource Efficiency ²	Construction Waste Reduction	At least 65 percent reduction	At least 80 percent reduction
	Recycled Content	Utilize recycled content materials for 10 percent of total material cost	Utilize recycled content materials for 15 percent of total material cost
		1 additional Elective from Division A5.4	3 additional Electives from Division A5.4
Environmental Quality	Low-VOC Resilient Flooring	80 percent of flooring meets VOC limits	90 percent of flooring meets VOC limits
	Low-VOC Thermal Insulation	Comply with VOC limits	Install no-added formaldehyde insulation & comply VOC limits
		1 additional Elective from Division A5.5	3 additional Electives from Division A5.5
Additional Measures	Added measures shall be achieved across at least 3 categories	1 Additional Elective	3 Additional Electives
Approximate Total Measures		14	24

California Building Standards Commission

■ Codes Online

- Newly reformatted CBSC website for easier access to code information
 - Rulemaking Process
 - Code Cycles
 - Current Codes
 - Guidebooks and other resources
 - Information Bulletins
 - Meeting Notices

■ www.bsc.ca.gov



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- CALGreen
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KNOW THE CODE!

Welcome! The California Building Standards Commission (CBSC) is responsible for the administration of California's building codes (California Code of Regulation, Title 24), which includes the adoption, approval, publication, and implementation of codes and standards.

California's building codes are published on a triennial basis. Supplements and errata are issued throughout the cycle. Review the [current code cycle](#) here.

The 2010 codes are available online both on this website and on the submitting agencies websites:

Residential construction: California Department of Housing and Community Development, www.hcd.ca.gov

Schools Construction: California Department of General Services, Division of the State Architect, www.dgs.ca.gov/dsa

Access Compliance: California Department of General Services, Division of the State Architect, www.dgs.ca.gov/dsa/Programs/progAccess

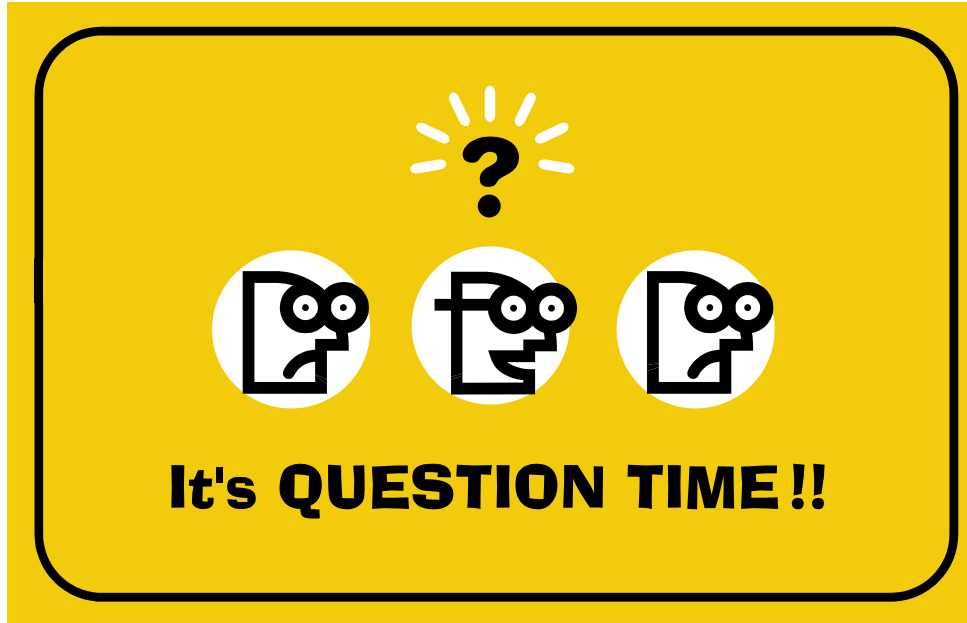
Hospitals and clinic construction: California Office of Statewide Health Planning and Development, <http://www.oshpd.ca.gov/>

Fire and Panic Safety: Office of the State Fire Marshal, <http://www.osfm.fire.ca.gov/>

California Building Standards Commission Meetings are now webcast - <http://www.dca.ca.gov/stream/audiocast.asx>. Link is active five minutes prior to meeting start times.

California's building codes are published by the International Code Council (ICC), with the exception of the Plumbing and Mechanical codes, and may be purchased directly from the council. Visit the online store at www.iccsafe.org, or call 800-786-4452 for order information.

Thank you...



Email: cbstraining@dgs.ca.gov

Phone: (916) 263-0916
